



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

SW

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/556,671	04/24/2000	Michael Stephen Austin	99-0138	7622

7590 03/25/2004

Boston Scientific Corporation
Attn William J Shaw
One Boston Scientific Place
Mail Stop C15
Natick, MA 01760-1537

EXAMINER

BAXTER, JESSICA R

ART UNIT PAPER NUMBER

3731

DATE MAILED: 03/25/2004

18

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/556,671

Applicant(s)

AUSTIN, MICHAEL STEPHEN

Examiner

Jessica R Baxter

Art Unit

3731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004 and 15 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-24, 27-37, 39 and 40 is/are pending in the application.
- 4a) Of the above claim(s) 39 and 40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-24 and 27-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 16.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 3731

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 20, 2004 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
3. Claims 1-9, 11-24 and 27-37 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Correction is noted and the rejection is withdrawn.
4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 1-9, 11-24 and 27-37 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Correction is noted and the rejection is withdrawn.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 3731

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, 8, 9, 11-16, 21, 23, 24, 27-32 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,994,071 to MacGregor.

Regarding claims 1, 8, 9, 23 and 24, MacGregor discloses a prosthesis comprising a hollow tubular body comprising at least one segment of curvature (see FIGS 2A-3D and Column 2 lines 32-49).

Regarding claim 2, MacGregor discloses that the body segment is curved in at least one plane (see FIGS 2A-3D).

Regarding claims 11 -15 and 26-31, MacGregor discloses that the hollow tubular body comprises undulating wire (see FIG. 1 loops 12) formed from a shape memory alloy, a super elastic alloy, a polymer, or nitinol (see Column 5 lines 39-51).

Regarding claims 16 and 32, MacGregor discloses that the wire is uniformly displaced along the length of the body (see FIG. 1 loops 12 and lattice 16).

Regarding claims 21 and 37, MacGregor discloses that at least one branch of the prosthesis extends away from the body of the prosthesis (see FIG. 1 lattices 20 and 22).

8. Claims 1, 2, 4, 8, 9, 18, 19, 21-24, 34, 35, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,653,743 to Martin.

Regarding claim 1, 8, 9, and 23-25, Martin discloses a prosthesis comprising a hollow tubular body with at least one segment of curvature (see FIG. 5). Martin discloses that the body comprises wire (see Column 2 lines 49-60).

Art Unit: 3731

Regarding claim 2, Martin discloses that the body segment is curved in at least one plane (see FIG. 5 prosthesis 1).

Regarding claim 4, Martin discloses that the body has at least two segments of curvature located in successive progression and are curved within the same plane of curvature (see FIG. 5 prosthesis 1).

Regarding claims 18 and 34, Martin discloses at least one taper along the length of the body (see FIG. 1 prosthesis 1).

Regarding claims 19 and 35, Martin discloses at least one aperture on the body between the proximal end and the distal end (see FIG. 1 opening 7).

Regarding claims 21 and 37, Martin discloses that at least one branch of the prosthesis extends away from the body of the prosthesis (see FIG. 5 graft 18).

Regarding claim 22, Martin discloses that at least a portion of the prosthesis is covered with a graft covering (see Column 2 lines 49-63).

9. Claims 1, 20, 23, and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,695,517 to Marin et al.

Marin discloses a prosthesis comprising a hollow tubular body comprising at least one segment of curvature (see FIG. 3 graft 46 L) and at least one non-circular cross-section along the length of the body (see Column 3 lines 24-33). Marin discloses that the stent is made of a wire distributed substantially equally along the length of the prosthesis (Column 11 lines 34-42).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3731

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 3, 5, 6, 7, 17 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin '743 in view of WO 95/09585 to Caro.

Martin discloses the claimed invention except for the three-dimensional shape of the prosthesis. Caro teaches that a prosthesis is made to have curvature in three dimensions since the body vessels are curved in more than two dimensions (Page 3 line 26-Page 4 line 27) and the three-dimensional prostheses improves swirl flow and blood velocity. It would have been obvious to one having ordinary skill in the art to provide the device of Martin with the three-dimensional curvature of Caro in order to influence local blood velocity fields and prevent/treat vascular disease with improved swirl flow and blood velocity.

Response to Arguments

12. Applicant's arguments filed January 20, 2004 have been fully considered but they are not persuasive.
13. Applicant argues that MacGregor '071 does not disclose a wire distributed substantially equally along the length of the prosthesis. The figures of MacGregor disclose a prosthesis with a wire/material distributed substantially equally along the length of the prosthesis. Therefore the rejection over MacGregor '071 is proper.
14. Applicant argues that Martin '743 does not disclose a wire distributed substantially equally along the length of the prosthesis. The figures of Martin '743 disclose a prosthesis with a wire/material distributed substantially equally along the length of the prosthesis. Therefore the rejection over Martin '743 is proper.

Art Unit: 3731

15. Applicant argues that Marin '517 does not disclose a wire distributed substantially equally along the length of the prosthesis. The figures of Marin disclose a prosthesis with a wire/material (Column 6 lines 34-39 and Column 11 lines 34-42) distributed substantially equally along the length of the prosthesis. Therefore the rejection over Marin '517 is proper.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica R Baxter whose telephone number is 703-305-4069. The examiner can normally be reached on M-F 8:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Milano can be reached on 703-308-2496. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


jrb

Jessica R Baxter
Examiner
Art Unit 3731


MICHAEL J. MILANO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700